ENVIRONMENT CANADA OPENING STATEMENT
BEAUFORT SEA EIS GUIDELINES HEARINGS
INUVIK, NOVEMBER 20, 1981

Delivered by:

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Environment Canada Opening Statement
Beaufort Sea EIS Guidelines Hearings
Inuvik, November 20, 1981

Mr. Chairman.

Thank you, on behalf of Environment Canada, for the opportunity to address the Beaufort Sea Environmental Assessment and Review Panel. We consider this Environmental Assessment and Review Process (EARP) referral as at least one of the most important, if not the most important, we have participated in to date. We will, therefore, do our best to assist the Panel in assessing the environmental implications of the Beaufort Sea Hydrocarbon Production Proposal.

Environment Canada has two roles to play in assisting the Panel in its review. We will be assessing the proposal first from the viewpoints of our Services which have specific responsibilities for forestry, inland water resources, pollution control, migratory birds management, national and historic parks, weather and climate services, and certain other subjects. These mandates arise from the Minister of the Environment's duties, powers, and functions in administering some thirteen acts with certain specific environmental objectives.

In addition, and equally important, Environment Canada is charged, by virtue of the Government Organization Act, with a broader environmental overview function with responsibility for "the coordination of the policies and programs of the Government of Canada respecting the preservation and enhancement of the quality of the natural environment".* We will, therefore, also be assessing the proposal before the Panel from this broader perspective. That is not to imply that Environment Canada considers itself to have the best government expertise available in all environmental concerns associated with the proposal or to speak to these concerns for the entire federal government. Other federal departments, notably the Department of Fisheries and Oceans, have greater expertise than Environment Canada in regard to their specific mandates. We will, therefore, rely upon other federal departments to address some specific environmental concerns. We will, however, be taking a wholistic, ecosystem view of the arctic environment and the potential impacts of this proposal on it.

Environment Canada recognizes the profound implications of this proposal for the

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* The DOE Act, Section 5(a)(vi)

arctic environment, and we, therefore, attach particular importance to this EARP referral. We have made a special effort to marshall the necessary departmental resources and best expertise possible to assist the Panel. We have established a special Beaufort Sea Project Office in Edmonton to focus and coordinate the Department's efforts. The office is supported by a team of experts in environmental planning and design, impact assessment, wildlife management, water resource management, terrestrial and marine biology, terrain and vegetation. This team will remain together throughout the EARProcess and longer.

The first task of our Beaufort Sea Project Team was to analyze numerous environmental concerns identified by various sources. This analysis lead to the identification of eight issues of major concern to the Department on which we will focus our attention in assessing the environmental implications of the proposal. These eight issues are:

Scientific Issues
1. Major oil spills -- probability, clean-up capability, impact potential
2. Major chemical spills -- probability, clean-up capability, impact potential
3. Adequate protection for significant natural and cultural resources
4. Cumulative impacts of development
5. Interaction of the development with atmospheric/sea state/ice regimes
6. Research and monitoring programs

Policy Issues
7. The need for an overall decision-making framework to direct and control the development
8. Government's ability to manage the development.

It was in light of these eight broad issues that we reviewed the Draft Environmental Impact Statement (EIS) Guidelines to prepare our written submission to the Panel. I will not repeat here the comments contained in that submission, but rather take this opportunity to expand upon the major issues that we feel the EIS should focus on and to restate some key concerns about the Draft Guidelines.

I'll start with major oil spills, the most obvious and perhaps the single greatest danger to the arctic environment presented by this proposal. The EIS should address three concerns associated with major oil spills.

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The first is risk. What are the risks of a major oil spill occurring? Where, when and why? What will be done to minimize risk? Is the risk greater with tankers than with pipelines? We've been told the risk factor is only one-in-a-million, but I hope that the EIS will not go deeply into heavy number-crunching that nobody understands (except the proponents of probability theory) and, more importantly, no one believes. Numbers can skew one's ideas on the accuracy of predictions of unpredictable events. We, in Environment Canada, are sold on Murphy's Law. The risk may be statistically low, but the environmental damage could be extremely high. Regardless of the numbers, risk exists and must be minimized. To do this we must concentrate on defining and analyzing the factors involved in risk, see what can be done to minimize each one and find out if there are any significant differences in risk between different drilling methods, different methods of transporting oil, different methods of storing oil, and so on.

Another aspect of major oil spills (and Murphy's Law tells us they will occur) is our ability to contain one or, failing that, to clean one up. Containment and clean-up are known to be serious problems in more benign climates. The severe arctic climate will undoubtedly make these operations more difficult and at the same time increase the risk factor. The question the EIS must answer is: "Is the state of the art in oil spill containment and clean-up in arctic conditions appropriate to, or seriously out of step with, the risk of a major oil spill in arctic conditions?"

The third concern is the effect of major oil spills on significant arctic resources. Where are those resources, where are the potential oil spills, where are the conflicts between the two, and what special measures will be taken to minimize, if not eliminate, these conflicts altogether?

These same three concerns apply to major chemical spills, but in somewhat different ways. A wide variety of deleterious chemicals could be released into the waters of the Beaufort Sea, either singly or in combination, in such substances as drilling muds, conditioning fluids, industrial fluids and solid wastes. The damage done by chemical spills will be difficult to stop and to restore. The proponent must demonstrate his ability, not only to cope with immediate and cumulative impacts of chemical spills, but to reduce their risk to the absolute minimum.

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Environment Canada feels the EIS should focus also on adequate protection for the significant natural and cultural resources of the region. Some of these resources are inseparable from the native lifestyle; if impaired, the local economy and social structure could be seriously affected. Others are important to ecosystems of national or international significance, as, for example, the caribou that migrate between Canada and the United States. Disturbance of such resources could seriously affect wildlife and ecosystems in distant parts of the country as well as in other parts of the world (e.g. migratory water fowl). These resources form a part of the heritage of the arctic peoples, and of Canadians as a whole. The EIS must identify them and describe the special measures that will be taken to protect them.

A further issue is the inter-relationship between the sea state/atmospheric and ice regimes and the proposed development. This is a two-sided issue. What effect will these factors have on the development? For example, how will the harsh climate effect the risk of major oil spills? How will the design of production facilities be modified to maintain safety standards? And, secondly, what effects will the development have on things such as ice stability, the location of the land fast ice edge, creation of artificial leads and increased ice fog? Relatively small or subtle changes in climate or in atmospheric circulation patterns might have significant effects on sea ice and its movement, and even upon currents. Will tanker traffic create open water barriers to winter movements of caribou? Will the disruption of the ice have irrevocable implications for ringed seals, polar bears feeding on them, and finally local residents depending on both?

Whether serious, irremedial, environmental concerns are identified in reviewing this proposal or not, adequate attention must be accorded to the cumulative effects of the many less serious environmental impacts that can and probably will significantly affect northern environmental quality. Cumulative impacts comprise a further major issue the EIS must address. There will be no clear demarcation between exploratory work, pre-production and production, and each will have its environmental effects. The Panel's terms of reference do not include exploration. Nonetheless, an adequate EIS must address exploration, at least from the standpoint of cumulative impacts. The cumulative impacts of other projects, such as the Arctic Pilot Project, and other external influences, such as hunting pressures on certain wildlife species, must also somehow be considered by the Panel.

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A sixth issue is the need to develop a comprehensive research and monitoring system. In responding to this proposed development we must be prepared to deal with the uncertainty caused by ever-developing technology and incomplete environmental information. A well developed, research, intelligence and monitoring system will enable timely responses to technological change and the advent of additional environmental information. Environment Canada believes an emphasis on the lack of scientific data and the subsequent need for research and monitoring is justified, in spite of the fact that much is known. A reasonably good predictive capability does exist, but only for certain areas. A great deal of research will be necessary to obtain adequate and balanced knowledge and an effective monitoring system will be required to ensure early warning against unexpected impacts.

The last two issues of concern to Environment Canada are of a policy rather than a scientific nature. The first of these concerns the need for an overall decision making framework for oil and gas production in the Beaufort Sea. The development, management and protection of the Arctic, as with any other region of Canada, must take place within the framework of government organization. Because environmental processes transcend political boundaries and a single human activity can impinge on matters under both federal and provincial/territorial jurisdictions, all levels of government and industry must cooperate in defining an environmental decision making framework adequate for proposals of this magnitude.

Many of the parts of this framework are already in place. EARP is one of them. But what are the other parts? How do they relate? Is the framework complete? Is there overlap and duplication? Can the process be made more efficient and and effective? Environment Canada considers this issue to be an integral part of the EIS because how the environmental decision making process works cannot help but influence the impact of this proposal on the environment.

The second policy issue is closely related to the first. The government must be capable of managing Beaufort Sea hydrocarbon development. It is not enough for industry to have the manpower, money, organization and will to do the job. The government also must be ready. The Panel has already recognized government preparedness as an important environmental issue by requesting statements from various government departments on their reactions to this proposal. This issue, however, is too vital to be treated as an adjunct to the EIS; it should be an

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integral component. I am not suggesting that the industry should address this issue or the other policy issue outlined, but that the initiator, in this case the Department of Indian Affairs and Northern Development (DIAND), which has the ultimate responsibility to ensure that the EIS is adequate for review by the Panel, should be directed through the Guidelines to provide this information for the EIS.

These, then,are the major issues that Environment Canada feels the EIS must deal with. Various aspects of these issues may be found in the present Draft Guidelines, scattered and unfocused. We have suggested consolidation and focus into eight major topics.

Unfortunately, Environment Canada believes that the Draft Guidelines, as they now stand, are not capable of producing an EIS that answers adequately all the questions raised under these eight major issues. The reason is that the Draft Guidelines are weakened by large, fundamental deficiencies.

The first is the absence of any requirement for the industry to present and to assess optional plans. The proponent has been asked to provide a single preliminary production and transportation plan. Instead the proponent has decided to provide only a single "scenario". As a consequence we are given a series of 'snap shots' between today and full production, snap shots which the industry admits may depart very markedly from reality. As indicated by industry "numerous important factors... may alter the eventual, real time outcome of events".* In these circumstances Environment Canada believes it is imperative that the proponent be required to provide not one, but a series of plans describing the full spectrum of development options available. A comparative analysis should also be developed providing a rationale for the selection of the option most desirable from the industry perspective.

This approach would provide all participants in the review with a better understanding of the range of developments possible, and their associated impacts thereby allowing for an expression of choice within that range. One must recognize the danger that significant public and private resources might be expended on reviewing a plan never to be implemented. There is the further risk that decisions made regarding the socio-economic and environmental acceptability of the proposal will be based on a series of generalized, inaccurate assumptions about the nature of the proposal.

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* Hydrocarbon Development in the Beaufort Sea - Mackenzie Delta Region: Dome,

Another serious concern is the strong focus of the Draft Guidelines on the inventory approach to impact assessment, calling as they do for lengthy descriptions of individual components of what is perceived as a stable, if not static, environment. However, the arctic environment is neither simple nor static. Its complex physical and biological relationships are characterized by dramatic fluctuations. In order to be able to predict environmental impact, these relationships and their significance to the maintenance of environmental quality must be understood. The Guidelines must stress an ecological approach to impact assessment. Otherwise the EIS will be of little predictive value, despite its lengthy and detailed inventories and descriptions.

Also absent from the Draft Guidelines is adequate direction on what issues should be addressed and in what priority. A great many activities and facilities support development projects of this magnitude, many falling within the realm of standard and demonstrated operational technology. Others do not,and it is vital that the Panel focus the EIS on those major issues that may ultimately determine the environmental acceptability of the proposal. As the Draft Guidelines stand, the proponent is offered the choice of issues to stress or underplay according to how he measures their significance. Environment Canada hopes that by raising the question now, to influence the Panel to identify those issues we wish addressed in detail, now, rather than later in the process.

Finally, and overwhelmingly, is the failure of the Draft Guidelines to clearly define their purpose. Confusion is evident as to the object and intent of the Panel review. I would submit that we may even be reviewing the wrong thing. Let me explain.

Industry perceives the EIS as part impact assessment and part regional plan. That being the case, and given the 'Concept' nature of the proposal, perhaps a comprehensive regional plan is what the Panel should properly review. Otherwise, the Panel's recommendations will be constrained by the fact that they are based on a project-specific EIS, an EIS that outlines only the oil and gas industry perspective on development options, and not the broader perspectives of the people of Canada, and, in particular, the people of Canada's North.

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Experience in the British Isles and elsewhere has shown that negative social and environmental impact can be significantly reduced and benefits increased if a comprehensive plan establishes the context for reviewing industry proposals. It is disappointing that four years after Berger recommended development of a conservation plan for the North we are still reviewing industry proposals without comprehensive regional plans as frames of reference. With DIAND's Northern Land Use Planning policy in place the mechanism now exists to produce such a plan for the Beaufort Sea area. At this point, you are perhaps expecting that Environment Canada will propose that this review be postponed until a regional plan is complete, and that consideration be given to EARPing the regional plan, rather than the industry proposal. It's not as simple as that. Despite good intentions, and hard work by a lot of government people, the wheels of government grind slowly. Witness the delays in getting to this stage in the present review. It's taken a long time for us to get this far, and we are reluctant to recommend that we now stop, and begin a new process. We are particularly reluctant to make such a proposal when exploration and development will continue and the oil industry may be firming up its plans and making irrevocable financial decisions. We're concerned that, if we get back to this same point in the review of a specific industry proposal two or three years from now, there may be nothing left to EARP. The decisions will have been made and any consequent damage will have been done.

There are three possible responses to this problem:

1. Withdraw or defer the present project referral and proceed with regional planning until such time as the latter is complete.
2. Continue with the present referral, start required planning as quickly as possible and coordinate the two processes to the extent possible.
3. Continue the EARP review as the most important thing to proceed with now, delaying regional planning until the Panel's recommendations on the industry's proposal are available. These recommendations would of course be very necessary input into the regional plan.

The third response is the least attractive to Environment Canada. If the pace of government could be made more compatible with that of industry we might choose a response of the first type. However, the second response may be the more practical, considering the realities of continuing incremental development and the lengthy time frames associated with regional planning and environmental impact assessments.

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Whatever approach is chosen, we urge that a decision be made immediately, before the Panel proceeds any further. It is essential to the success of the review that, from the start, the Panel, the initiator, the proponent, the various intervenors and the general public, all have a clear and common understanding of what is being EARPed, why it is being EARPed,and how the results of the process will be used in the overall decision-making process. Without that common understanding and without correction of the other serious deficiencies I have noted, Environment Canada feels the Draft Guidelines, as they now stand, will result in an EIS that doesn't adequately reflect the importance of this Panel's review to the future quality of Canada's arctic environment.

Thank you, Mr. Chairman.

A. H. Macpherson
Regional Director General
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Environment Canada
Supplementary Comments
Beaufort Sea EIS Guidelines Hearings
Inuvik Nov. 20/81

Mr. Chairman:

That concludes Environment Canada's prepared statement. It was only this morning that I first saw the document entitled Clarification of Key Elements of Panel's Review. I regret that this document was not available earlier since it attempts to address many of the key concerns raised in our written statement to the Panel. We then would have been able to directly address your document in the remarks I have just concluded. However, my initial reaction is that your document would not have substantively changed Environment Canada's position.

On the one hand, we are pleased that the Panel has taken our concerns seriously enough to address them very early in the process. On the other, I am disappointed that Environment Canada's basic message does not appear to have gotten through in our written comments. I hope our remarks today will make that message clearer to the Panel. At the risk of over statement let me try to rephrase the message a third time.

Environment Canada has classified the major issues of concern to it into two categories: scientific and policy. That classification is no accident. Environmental impact is determined by two basic sets of laws or principles - those of nature and those of man. It is not sufficient to address only the laws of nature - the scientific issues - especially in this case where the science is at best weak because of major knowledge gaps. The laws of man - the policy issues - play an equal role in determining environmental impact. It is one thing to know what science tells us about what will happen to the environment as a result of this proposal. It is another to use the science effectively to make decisions. It is the opinion of Environment Canada that if the Panel is to adequately fulfill its mandate, it must place equal emphasis on both categories of issues. Your short response to many of the key policy issues does not do justice to them and we feel strongly that they should be dealt with at length in the EIS.

Perhaps it would help if we reminded everyone who the guidelines are being issued to. It is not the proponent. It is not the major oil companies - Dome, Esso and Gulf. It is the initiator, in this case, DIAND. DIAND has the ultimate responsibility to ensure that the EIS is adequate, not the proponent. DIAND may choose, as it has, to delegate preparation of the EIS to the proponents. That is common practice. But the ultimate responsibility still remains with DIAND. If the Panel decides, (and Environment Canada urge you to do so) that comprehensive answers, to the policy issues are equally important as answers, to the scientific issues, then DIAND should be directed through the guidelines to ensure that those issues are addressed in the EIS.

Thank you, Mr. Chairman.

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